

INDEX OF TECHNICAL AND SYMPOSIUM PAPERS

VOLUME 88, PART 1

TITLES

- | | | | |
|---|------|--|------|
| A | | Daylighting Energy Savings Algorithm (RP-258), R.A. RUNDQUIST..... | 343 |
| All-Day, Average-Day Performance of Evacuated Tube Solar Collectors Using Off-Normal Incidence Angle Test Data, The, D.M. PLATT.... | 299 | Defining Thermal Acceptability in Structures Passively Heated by Solar Energy, R.B. HAYTER..... | 1043 |
| Analysis and Simulation of an Efficient Liquid Desiccant System for Warehouse Dehumidification, C.S.P. PENG, J.R. HOWELL.... | 1097 | Dehumidification between Parallel Plates, V. KADAMBI, J.E. GIANISANTE..... | 255 |
| Analysis of Gas-Engine-Driven Heat Pump Systems, A. PATANI, U. BONNE..... | 1171 | Design Guidelines for Spot Cooling Systems: Part 1—Assessing the Acceptability of the Environment, N.Z. AZER..... | 81 |
| Analyzing Flow Conditions in Integrated Loop Systems, S. AGNON..... | 211 | Design Guidelines for Spot Cooling Systems: Part 2—Cooling Jet Model and Design Procedure, N.Z. AZER..... | 97 |
| Annual Cycle Energy-System Performance and National Economic Comparisons with Competitive Residential HVAC Systems, V.D. BAXTER, L.A. ABBATIello, E.A. NEPHEW.... | 1279 | Determination of the Dynamic Performance of Walls, The, M.H. SHERMAN, R.C. SONDEREGGER, J.W. ADAMS..... | 689 |
| Application of Building Thermal-Resistance Measurement Techniques, J.E. JANSSEN..... | 713 | Development and Test of Solar Rankine Cycle Heating and Cooling Systems, F.R. BIANCARDI, J.W. SITLER, G. MELIKIAN..... | 971 |
| Application of Single-Chip Microprocessors to HVAC Control, The, G.M. STROHALLen, W.E. ZEISS..... | 1237 | Development of a Vaporizing Burner for an Air-Conditioning Unit Ventilator, M. SAKAMOTO, T. SAITO..... | 285 |
| B | | Development of an Energy-Saving-Oriented Variable Capacity System Heat Pump, K. IIDA, T. YAMAMOTO, T. KURODA, H. HIBI..... | 441 |
| Better Control through Computers, V.A. WILLIAMS.... | 1247 | Developments in Heat-Operated Heat Pumps in West Germany, F.W. STEIMLE..... | 859 |
| C | | Direct, Evaporatively Cooled, Three-Ton Lithium Bromide-Water Absorption Chiller for Solar Application, A. R.H. MERRICK..... | 797 |
| Characteristics and Design Method for Push-Pull Hoods: Part 1—Cooperation Theory on Airflow, M. SHIBATA, R.H. HOWELL, T. HAYASHI.... | 535 | District Energy System Analysis (DESA)—A Computer Aided Feasibility Tool, E.L. MOROFSKY..... | 1337 |
| Characteristics and Design Method for Push-Pull Hoods: Part 2—Streamline Analyses of Push-Pull Flows, M. SHIBATA, R.H. HOWELL, T. HAYASHI..... | 557 | DOE Test Procedure Setup Measurement Errors for Unitary Air Conditioners: Part 2, D.R. TREE, G.D. LAMB..... | 1141 |
| Characteristics of Different Sizes and Types of Intelligent Control Systems, M.A. RANIERI.... | 1229 | E | |
| Chart Correlation for Saturated Boiling Heat Transfer: Equations and Further Study, M.M. SHAH..... | 185 | Effect of Location on the Predicted Performance of a Heat Pump Water Heater, The, W.P. LEVINS.... | 585 |
| Comparison of Eight Solar-Driven Absorption Cooling Systems in the National Solar Data Network, A. C.J. KELLY, JR., T.L. LOGEE..... | 1001 | Effect of Supply and Return Outlets on Stratification: Part 2, The (RP-215), J.B. OLIVIERI, T. SINGH..... | 45 |
| Conceptual Design and Performance Analysis of Absorption Heat Pumps for Waste Heat Utilization, G. GROSSMAN, H. PEREZ-BLANCO.... | 451 | Effect of Varying Exhaust Stack Height on Contaminant Concentration at Roof Level, The (RP-204), D.J. WILSON, G. WINKEL..... | 515 |
| Coping with HVAC Design Parameters North of the 60th Parallel in Canada's Yukon Territory, D.B. LEANEY..... | 773 | Effective Chilled-Water Coil Control to Reduce Pump Energy and Flow Demand, L.R. HARD-AWAY..... | 331 |
| Critical Wind Speeds for Maximum Exhaust Gas Reentry from Flush Vents at Roof Level Intakes (RP-136), D.J. WILSON..... | 503 | Energy Conserving Controls for Space-Conditioning Systems, A. PATANI, R.D. JACOBSON, U. BONNE..... | 63 |
| D | | Energy-Conserving Retrofits and Indoor Air Quality in Residential Housing, C.D. HOLLOWELL, R.A. | |
| Daylight, Glazing, and Building Energy Minimization, S.A. JUROVICS..... | 375 | | |

INDEX OF TECHNICAL AND SYMPOSIUM PAPERS

VOLUME 88, PART 1

TITLES

- | | | | |
|---|------|--|------|
| A | | Daylighting Energy Savings Algorithm (RP-258), R.A. RUNDQUIST..... | 343 |
| All-Day, Average-Day Performance of Evacuated Tube Solar Collectors Using Off-Normal Incidence Angle Test Data, The, D.M. PLATT.... | 299 | Defining Thermal Acceptability in Structures Passively Heated by Solar Energy, R.B. HAYTER..... | 1043 |
| Analysis and Simulation of an Efficient Liquid Desiccant System for Warehouse Dehumidification, C.S.P. PENG, J.R. HOWELL.... | 1097 | Dehumidification between Parallel Plates, V. KADAMBI, J.E. GIANISANTE..... | 255 |
| Analysis of Gas-Engine-Driven Heat Pump Systems, A. PATANI, U. BONNE..... | 1171 | Design Guidelines for Spot Cooling Systems: Part 1—Assessing the Acceptability of the Environment, N.Z. AZER..... | 81 |
| Analyzing Flow Conditions in Integrated Loop Systems, S. AGNON..... | 211 | Design Guidelines for Spot Cooling Systems: Part 2—Cooling Jet Model and Design Procedure, N.Z. AZER..... | 97 |
| Annual Cycle Energy-System Performance and National Economic Comparisons with Competitive Residential HVAC Systems, V.D. BAXTER, L.A. ABBATIello, E.A. NEPHEW.... | 1279 | Determination of the Dynamic Performance of Walls, The, M.H. SHERMAN, R.C. SONDEREGGER, J.W. ADAMS..... | 689 |
| Application of Building Thermal-Resistance Measurement Techniques, J.E. JANSSEN..... | 713 | Development and Test of Solar Rankine Cycle Heating and Cooling Systems, F.R. BIANCARDI, J.W. SITLER, G. MELIKIAN..... | 971 |
| Application of Single-Chip Microprocessors to HVAC Control, The, G.M. STROHALLen, W.E. ZEISS..... | 1237 | Development of a Vaporizing Burner for an Air-Conditioning Unit Ventilator, M. SAKAMOTO, T. SAITO..... | 285 |
| B | | Development of an Energy-Saving-Oriented Variable Capacity System Heat Pump, K. IIDA, T. YAMAMOTO, T. KURODA, H. HIBI..... | 441 |
| Better Control through Computers, V.A. WILLIAMS | 1247 | Developments in Heat-Operated Heat Pumps in West Germany, F.W. STEIMLE..... | 859 |
| C | | Direct, Evaporatively Cooled, Three-Ton Lithium Bromide-Water Absorption Chiller for Solar Application, A. R.H. MERRICK..... | 797 |
| Characteristics and Design Method for Push-Pull Hoods: Part 1—Cooperation Theory on Airflow, M. SHIBATA, R.H. HOWELL, T. HAYASHI.... | 535 | District Energy System Analysis (DESA)—A Computer Aided Feasibility Tool, E.L. MOROFSKY..... | 1337 |
| Characteristics and Design Method for Push-Pull Hoods: Part 2—Streamline Analyses of Push-Pull Flows, M. SHIBATA, R.H. HOWELL, T. HAYASHI..... | 557 | DOE Test Procedure Setup Measurement Errors for Unitary Air Conditioners: Part 2, D.R. TREE, G.D. LAMB..... | 1141 |
| Characteristics of Different Sizes and Types of Intelligent Control Systems, M.A. RANIERI.... | 1229 | E | |
| Chart Correlation for Saturated Boiling Heat Transfer: Equations and Further Study, M.M. SHAH..... | 185 | Effect of Location on the Predicted Performance of a Heat Pump Water Heater, The, W.P. LEVINS.... | 585 |
| Comparison of Eight Solar-Driven Absorption Cooling Systems in the National Solar Data Network, A. C.J. KELLY, JR., T.L. LOGEE..... | 1001 | Effect of Supply and Return Outlets on Stratification: Part 2, The (RP-215), J.B. OLIVIERI, T. SINGH..... | 45 |
| Conceptual Design and Performance Analysis of Absorption Heat Pumps for Waste Heat Utilization, G. GROSSMAN, H. PEREZ-BLANCO.... | 451 | Effect of Varying Exhaust Stack Height on Contaminant Concentration at Roof Level, The (RP-204), D.J. WILSON, G. WINKEL..... | 515 |
| Coping with HVAC Design Parameters North of the 60th Parallel in Canada's Yukon Territory, D.B. LEANEY..... | 773 | Effective Chilled-Water Coil Control to Reduce Pump Energy and Flow Demand, L.R. HARD-AWAY..... | 331 |
| Critical Wind Speeds for Maximum Exhaust Gas Reentry from Flush Vents at Roof Level Intakes (RP-136), D.J. WILSON..... | 503 | Energy Conserving Controls for Space-Conditioning Systems, A. PATANI, R.D. JACOBSON, U. BONNE..... | 63 |
| D | | Energy-Conserving Retrofits and Indoor Air Quality in Residential Housing, C.D. HOLLOWELL, R.A. | |
| Daylight, Glazing, and Building Energy Minimization, S.A. JUROVICS..... | 375 | | |

YOUNG, J.V. BERK, S.R. BROWN	875
Energy Recovery from the Incineration of Hazardous Liquid Wastes, S.V. SHEPPARD, R.W. JONES	1205
Energy Savings through Improved Control of Heat Pump Setback, A.O. BACKUS	467
Evaluating Design Temperatures for HVAC Ap- plications in Extreme Climates, O.E. RICHARD ..	747
Evaluating Wind Ventilation in Buildings by Wind Tunnel Tests, C.K. KRISHNAKUMAR, S.F. FIELDS, R.H. HENNINGER, D.A. BETTGE	227

F

Factorial Analysis on Conditions Affecting the Sense of Comfort of Workers in the Air- Conditioned Working Environment, K. YAMAZAKI	241
Fan Motor Efficiency, G. HOFFMEISTER	643
Field Heat-Transfer Measurements and Life-Cycle Cost Analysis of Four Wood Frame Wall Constructions, T.H. KUEHN	651
Free Cooling: A Total HVAC Design Concept, C.E. JANEKE	27
Friction Factor and Roughness for Airflow in Plastic Pipes (RP-245), W.B. SWIM	269

G

GEOCITY: A Computer Model for Systems Analysis of Geothermal District Heating and Cooling Costs, C.H. BLOOMSTER, L.L. FASSBENDER ..	1309
Geothermal District-Heating Assessment Model for Decision Making, A. A.W. REISMAN	1297
GRITS—A Computer Program for Economic Evaluation of Geothermal Energy, S.M. KANE, W.F. BARRON, F.C. PADDISON, P. KROLL	1323

H

Heat Pump System Performance: Experimental and Theoretical Results, V.W. GOLDSCHMIDT, G.H. HART	479
Heat Pump Water Heaters with a Comparison to Solar Domestic Water Heaters, L.S. MORRISON, D.E. CLARIDGE	597
Heat Recovery Using a Venturi Scrubber, W.J. GILBERT, JR.	1197
Heat Transfer Characteristics of Clothing Worn in Hot Industrial Environments, E.A. Mc- CULLOUGH, E.J. ARPIN, B. JONES, S.A. KONZ, F.H. ROHLES, JR.	1077
Heat Transfer in Metal Window Frames and Glass Support Structures, R.N. SMITH, P.Y. HSIEH, G.T. MANNELL	315
Heat Transfer under Hypobaric Conditions, S.P. BURG, R.L. KOSSON	1443
High Temperature Solar Cooling Systems, H.M. CURRAN	1125
Highest Efficiency Gas Direct-Fired Absorption Water Heater-Chiller, The, S. KUROSAWA, M. YOSHIKAWA	401
Human Engineering—The Man/Surface Interface, B. WESTPHAL	1435
Hypobaric Storage of Floral Crops, G.L. STABY, M.P. BRIDGEN, B.A. EISENBERG, M.S. CUNNINGHAM, J.W. KELLY, P.S. KONJOIAN, C.L. HOLSTEAD	1487

Hypobaric Storage of Tropical Fruits, D.H. SPALDING	1479
--	------

I

Ice-Maker Heat Pump Performance—Reedsburg Center, C.E. DORGAN, G.C. NELSON, W.F. SHARP	1271
Impact of Thermostat Performance on Energy Consumption and Occupant Comfort in Residential Electric Heating Systems, The, R. BENTON	1029
Impact of Ventilation Rates on the Design of Office Buildings, The, H. ROSS, M. GOODMAN, B. BIRDSALL	915
Improved Operator Interface Techniques, L.J. DRESSEL	1411
In Situ Measurements of Frame Wall Thermal Resistance, W.C. BROWN, G.D. SCHUYLER ..	667
In Situ Measurement of Masonry Wall Thermal Resistance, S.N. FLANDERS, S.J. MARSHALL ..	677
Influence of Extreme Hot, Humid Climatic Con- ditions on Air-Conditioning Systems Ap- plications, B.M. ROBERTS	781
Influence of Extreme Warm Climatic Conditions on Air-Conditioning Systems Applications: The Middle East Area, The, R.H. ROOLEY, R.J. EVANS	767

L

Look at Single-Phase Motor Designs for Improved S.E.E.R. in Annual Heat Pump and Air- Conditioning Operation, A. J.H. JOHNSON ...	619
---	-----

M

Monitoring Industrial Process Exhaust for Recirculation, P.S. ESHELMAN	1221
---	------

N

New Absorber Heat Recovery Cycle to Improve COP of Aqua-Ammonia Absorption Refrigeration System, A. S.G. KANDLIKAR ...	141
New Fluid Bed, Air-to-Air Heat Exchangers Offer Many Advantages, H.F. SCHADT	1215

O

Occupant-Generated CO ₂ as an Indicator of Ventilation Rate, I. TURIEL, J.V. RUDY	197
Open-Cycle Absorption Heat Pumps for Low-Grade Heat Utilization, H. PEREZ-BLANCO, G. GROSSMAN	825
Operation of an Active Solar Air-Conditioning System in a Hot, Dry Climate, J.I. YELLOTT ...	987
Optimizing HVAC Systems Using Industrial Refrigeration Technology, R.H. STAMM	1259
Organic Contaminants in Indoor Air and Their Relation to Outdoor Contaminants: Phase 2— Statistical Analysis (RP-183), D.S. BECKER. ...	491

P

Positive and Negative Effects of Building Humidification, The, G.H. GREEN	1049
Predicting Particulate Air Quality in Recirculatory Ventilation Systems, R.D. RIVERS	929

- Predictive Air Infiltration Model—Long-Term Field Test Validation, A. D.T. GRIMSRUD, M.P. MODERA, M.H. SHERMAN | 1351
- Principles and Effects of Hypobaric Storage of Fruits and Vegetables, D.R. DILLEY | 1461

R

- Rapid Cooling of Effluents for Biorassay Tests Using Stored Cooling Capacity of Refrigerated Brine, K.R. SCOTT, A. FRIESEN | 127
- Reference Building—One Approach in the Evolution of Building Energy Performance Criteria for Houses, The, J.L. HELDENBRAND, S.R. PETERSEN | 387
- Refrigerant Line Sizing (RP-185), D.D. WILE | 117
- Research and Development of an Air-Cycle Heat Pump Water Heater, W.M. TOSCANO, A.C. HARVEY, A.J. ERICKSON | 603
- Residential Water Heating: What's Best for You? L.A. ABBATIELLO, E.A. NEPHEW, M.L. BALLOU | 575

S

- Sampling for Air Exchange: Rates in a Variety of Buildings, D.T. HARRJE, K. GADSBY, G. LINTERIS | 1373
- Search for, Recording, and Care of Engineering Records Having a Historical Value, The, J.H. FOX | 965
- Showering Behavior: Implications for Water and Energy Conservation, F.H. ROHLES, JR., S.A. KONZ | 1063
- Small Size Automatic Electric Refrigeration—When Did It Start? B.A. NAGENGAST | 953
- Solar Source Heat Pump with Refrigerant-Cooled Solar Collectors for Cold Climates, A, (RP-247), K.I. KRAKOW, S. LIN | 417
- Solar System of the Duho Park Gymnasium, S. TAKAMA | 1113

- SOLERAS Solar Cooling Project, G. COR-COLEOTES, J.S. WILLIAMSON | 1017
- Space Shuttle—Design of Launch Complex HVAC, J.P. NAUERT | 957
- Steam Ejector as an Industrial Heat Pump, The, H.G. ARNOLD, W.R. HUNTLEY, H. PEREZ-BLANCO | 845
- Subjective and Objective Evaluation of a CO₂-Controlled Variable Ventilation System, J.E. WOODS, G. WINAKOR, E.A.B. MALDONADO, S. KIPP | 1385

T

- Technique for the Use of Color Graphics and Light Pens in Energy Management Applications, A, R.W. SCHAEFER | 1425
- Thermal Measurements of Building Envelope Components in the Field, C.C. ROBERTS, JR., K. REINKE, JR. | 733
- Tobacco Smoke, Ventilation, and Indoor Air Quality, J.L. REPACE, A.H. LOWREY | 895
- Transpiration Rates of Stored Perishable Commodities: A Mathematical Model and Experiments on Tomatoes, S.K. SASTRY, D.E. BUFFINGTON | 159

U

- Urban Climate Modification, J.L. GOLDMAN | 757
- Use of Mixed Refrigerants in Air-to-Air Heat Pumps, The, W.D. COOPER | 1159

V

- Variable-Speed Compressor Motors Operated on Inverters, J.D. LLOYD | 633

W

- Water-Lithium Bromide Double-Effect Absorption Cooling Cycle Analysis, G.C. VLIET, M.B. LAWSON, R.A. LITHGOW | 811

AUTHORS

A

- ABBATIELLO, L.A., E.A. NEPHEW, M.L. BALLOU, Residential Water Heating: What's Best for You? I 575
- ABBATIELLO, L.A., V.D. BAXTER, E.A. NEPHEW, Annual Cycle Energy-System Performance and National Economic Comparisons with Competitive Residential HVAC Systems I 1279
- ADAMS, J.W., M.H. SHERMAN, R.C. SONDEREGGER, The Determination of the Dynamic Performance of Walls I 689
- AGNON, S., Analyzing Flow Conditions in Integrated Loop Systems I 211
- ARNOLD, H.G., W.R. HUNTLEY, H. PEREZ-BLANCO, The Steam Ejector as an Industrial Heat Pump I 845
- ARPIN, E.J., E.A. McCULLOUGH, B. JONES, S.A. KONZ, F.H. ROHLES, JR., Heat Transfer Characteristics of Clothing Worn in Hot Industrial Environments I 1077
- AZER, N.Z., Design Guidelines for Spot Cooling Systems: Part 1—Assessing the Acceptability of the Environment I 63
- AZER, N.Z., Design Guidelines for Spot Cooling Systems: Part 2—Cooling Jet Model and Design Procedures I 97

B

- BACKUS, A.O., Energy Savings through Improved Control of Heat Pump Setback I 467
- BALLOU, M.L., L.A. ABBATIELLO, E.A. NEPHEW, Residential Water Heating: What's Best for You? I 575
- BARRON, W.F., S.M. KANE, F.C. PADDISON, P. KROLL, GRITS—A Computer Program for Economic Evaluation of Geothermal Energy ... I 1323
- BAXTER, V.D., L.A. ABBATIELLO, E.A. NEPHEW, Annual Cycle Energy-System Performance and National Economic Comparisons with Competitive Residential HVAC Systems I 1279
- BECKER, D.S., Organic Contaminants in Indoor Air and Their Relation to Outdoor Contaminants: Phase 2—Statistical Analysis (RP-183) I 491
- BENTON, R., The Impact of Thermostat Performance on Energy Consumption and Occupant Comfort in Residential Electric Heating Systems I 1029
- BERK, J.V., C.D. HOLLOWELL, R.A. YOUNG, S.R. BROWN, Energy-Conserving Retrofits and Indoor Air Quality in Residential Housing I 875
- BETTGE, D.A., C.K. KRISHNAKUMAR, S.F. FIELDS, R.H. HENNINGER, Evaluating Wind Ventilation in Buildings by Wind Tunnel Tests .. I 227
- BIANCARDI, F.R., J.W. SITLER, G. MELIKIAN, Development and Test of Solar Rankine Cycle Heating and Cooling Systems I 971
- BIRDSALL, B., H. ROSS, M. GOODMAN, The Impact of Ventilation Rates on the Design of Office Buildings I 915
- BLOOMSTER, C.H., L.L. FASSBENDER, GEOCITY: A Computer Model for Systems

- Analysis of Geothermal District Heating and Cooling Costs I 1309
- BONNE, U., A. PATANI, Analysis of Gas-Engine-Driven Heat Pump Systems I 1171
- BONNE, U., A. PATANI, R.D. JACOBSON, Energy Conserving Controls for Space-Conditioning Systems I 63
- BRIDGEN, M.P., G.L. STABY, B.A. EISENBERG, M.S. CUNNINGHAM, J.W. KELLY, P.S. KONJOIAN, C.L. HOLSTEAD, Hypobaric Storage of Floral Crops I 1487
- BROWN, S.R., C.D. HOLLOWELL, R.A. YOUNG, J.V. BERK, Energy-Conserving Retrofits and Indoor Air Quality in Residential Housing I 875
- BROWN, W.C., G.D. SCHUYLER, In Situ Measurements of Frame Wall Thermal Resistance I 667
- BUFFINGTON, D.E., S.K. SASTRY, Transpiration Rates of Stored Perishable Commodities: A Mathematical Model and Experiments on Tomatoes I 159
- BURG, S.P., R.L. KOSSON, Heat Transfer under Hypobaric Conditions I 1443

C

- CLARIDGE, D.E., L.S. MORRISON, Heat Pump Water Heaters with a Comparison to Solar Domestic Water Heaters I 597
- COOPER, W.D., The Use of Mixed Refrigerants in Air-to-Air Heat Pumps I 1159
- CORCOLEOTES, G., J.S. WILLIAMSON, SOLERAS Solar Cooling Project I 1017
- CUNNINGHAM, M.S., G.L. STABY, M.P. BRIDGEN, B.A. EISENBERG, J.W. KELLY, P.S. KONJOIAN, C.L. HOLSTEAD, Hypobaric Storage of Floral Crops I 1487
- CURRAN, H.M., High Temperature Solar Cooling Systems I 1125

D

- DILLEY, D.R., Principles and Effects of Hypobaric Storage of Fruits and Vegetables I 1461
- DORGAN, C.E., G.C. NELSON, W.F. SHARP, Ice-Maker Heat Pump Performance—Reedsburg Center I 1271
- DRESSEL, L.J., Improved Operator Interface Techniques I 1411

E

- EISENBERG, B.A., G.L. STABY, M.P. BRIDGEN, M.S. CUNNINGHAM, J.W. KELLY, P.S. KONJOIAN, C.L. HOLSTEAD, Hypobaric Storage of Floral Crops I 1487
- ERICKSON, A.J., W.M. TOSCANO, A.C. HARVEY, Research and Development of an Air-Cycle Heat Pump Water Heater I 603
- ESHELMAN, P.S., Monitoring Industrial Process Exhaust for Recirculation I 1221
- EVANS, R.J., R.H. ROOLEY, The Influence of Extreme Warm Climatic Conditions on Air-Conditioning Systems Applications: The Middle East Area I 767

F

- FASSBENDER, L.L., C.H. BLOOMSTER, GEOCITY: A Computer Model for Systems Analysis of Geothermal District Heating and Cooling Costs | 1309
- FIELDS, S.F., C.K. KRISHNAKUMAR, R.H. HENNINGER, D.A. BETTGE, Evaluating Wind Ventilation in Buildings by Wind Tunnel Tests . . | 227
- FLANDERS, S.N., S.J. MARSHALL, In Situ Measurement of Masonry Wall Thermal Resistance | 677
- FOX, J.H., The Search for, Recording, and Care of Engineering Records Having Historical Value . . | 965
- FRIESEN, A., K.R. SCOTT, Rapid Cooling of Effluents for Bioassay Tests Using Stored Cooling Capacity of Refrigerated Brine | 127

G

- GADSBY, K., D.T. HARRJE, G. LINTERIS, Sampling for Air Exchange: Rates in a Variety of Buildings | 1373
- GIANSANTE, J.E., V. KADAMBI, Dehumidification between Parallel Plates | 255
- GILBERT, W.J., JR., Heat Recovery Using a Venturi Scrubber | 1197
- GOLDMAN, J.L., Urban Climate Modification . . . | 757
- GOLDSCHMIDT, V.W., G.H. HART, Heat Pump System Performance: Experimental and Theoretical Results | 479
- GOODMAN, M., H. ROSS, B. BIRDSALL, The Impact of Ventilation Rates on the Design of Office Buildings | 915
- GREEN, G.H., The Positive and Negative Effects of Building Humidification | 1049
- GRIMSRUD, D.T., M.P. MODERA, M.H. SHERMAN, A Predictive Air Infiltration Model—Long-Term Field Test Validation | 1351
- GROSSMAN, G., H. PEREZ-BLANCO, Conceptual Design and Performance Analysis of Absorption Heat Pumps for Waste Heat Utilization | 451
- GROSSMAN, G., H. PEREZ-BLANCO, Open-Cycle Absorption Heat Pumps for Low-Grade Heat Utilization | 825

H

- HARDAWAY, L.R., Effective Chilled-Water Coil Control to Reduce Pump Energy and Flow Demand | 331
- HARRJE, D.T., K. GADSBY, G. LINTERIS, Sampling for Air Exchange: Rates in a Variety of Buildings | 1373
- HART, G.H., V.W. GOLDSCHMIDT, Heat Pump System Performance: Experimental and Theoretical Results | 479
- HARVEY, A.C., W.M. TOSCANO, A.J. ERICKSON, Research and Development of an Air-Cycle Heat Pump Water Heater | 603
- HAYASHI, T., M. SHIBATA, R.H. HOWELL, Characteristics and Design Method for Push-Pull Hoods: Part 1—Cooperation Theory on Airflow | 535
- HAYASHI, T., M. SHIBATA, R.H. HOWELL, Characteristics and Design Method for Push-

- Pull Hoods: Part 2—Streamline Analyses of Push-Pull Flows | 557
- HAYTER, R.B., Defining Thermal Acceptability in Structures Passively Heated by Solar Energy . . | 1043
- HELDENBRAND, J.L., S.R. PETERSEN, The Reference Building—One Approach in the Evolution of Building Energy Performance Criteria for Houses | 387
- HENNINGER, R.H., C.K. KRISHNAKUMAR, S.F. FIELDS, D.A. BETTGE, Evaluating Wind Ventilation in Buildings by Wind Tunnel Tests . . | 227
- HIBI, H., K. IIDA, T. YAMAMOTO, T. KURODA, Development of an Energy-Saving-Oriented Variable Capacity System Heat Pump | 441
- HOFFMEISTER, G., Fan Motor Efficiency | 643
- HOLLOWELL, C.D., R.A. YOUNG, J.V. BERK, S.R. BROWN, Energy-Conserving Retrofits and Indoor Air Quality in Residential Housing | 875
- HOLSTEAD, C.L., G.L. STABY, M.P. BRIDGEN, B.A. EISENBERG, M.S. CUNNINGHAM, J.W. KELLY, P.S. KONJOIAN, Hypobaric Storage of Floral Crops | 1487
- HOWELL, J.R., C.S.P. PENG, Analysis and Simulation of an Efficient Liquid Desiccant System for Warehouse Dehumidification | 1097
- HOWELL, R.H., M. SHIBATA, T. HAYASHI, Characteristics and Design Method for Push-Pull Hoods: Part 1—Cooperation Theory on Airflow | 535
- HOWELL, R.H., M. SHIBATA, T. HAYASHI, Characteristics and Design Method for Push-Pull Hoods: Part 2—Streamline Analyses of Push-Pull Flows | 557
- HSIEH, P.Y., R.N. SMITH, G.T. MANNELL, Heat Transfer in Metal Window Frames and Glass Support Structures | 315
- HUNTLEY, W.R., H.G. ARNOLD, H. PEREZ-BLANCO, The Steam Ejector as an Industrial Heat Pump | 845

I

- IIDA, K., T. YAMAMOTO, T. KURODA, H. HIBI, Development of an Energy-Saving-Oriented Variable Capacity System Heat Pump | 441

J

- JACOBSON, R.D., A. PATANI, U. BONNE, Energy Conserving Controls for Space-Conditioning Systems | 63
- JANEKE, C.E., Free Cooling: A Total HVAC Design Concept | 27
- JANSSEN, J.E., Application of Building Thermal-Resistance Measurement Techniques | 713
- JOHNSON, J.H., A Look at Single-Phase Motor Designs for Improved S.E.E.R. in Annual Heat Pump and Air-Conditioning Operation | 619
- JONES, B., E.A. McCULLOUGH, E.J. ARPIN, S.A. KONZ, F.H. ROHLES, JR., Heat Transfer Characteristics of Clothing Worn in Hot Industrial Environments | 1077
- JONES, R.W., S.V. SHEPPARD, Energy Recovery from the Incineration of Hazardous Liquid Wastes | 1205
- JUROVICS, S.A., Daylight, Glazing, and Building Energy Minimization | 375

K

- KADAMBI, V., J.E. GIANISANTE, Dehumidification between Parallel Plates 255
- KANDLIKAR, S.G., A New Absorber Heat Recovery Cycle to Improve COP of Aqua-Ammonia Absorption Refrigeration System. . . 141
- KANE, S.M., W.F. BARRON, F.C. PADDISON, P. KROLL, GRITS—A Computer Program for Economic Evaluation of Geothermal Energy . . 1323
- KELLY, C.J., JR., T.L. LOGEE, A Comparison of Eight Solar-Driven Absorption Cooling Systems in the National Solar Data Network . . . 1001
- KELLY, J.W., G.L. STABY, M.P. BRIDGEN, B.A. EISENBERG, M.S. CUNNINGHAM, P.S. KONJOIAN, C.L. HOLSTEAD, Hypobaric Storage of Floral Crops . . . 1487
- KIPP, S., J.E. WOODS, G. WINAKOR, E.A.B. MALDONADO, Subjective and Objective Evaluation of a CO₂-Controlled Variable Ventilation System . . . 1385
- KONJOIAN, P.S., G.L. STABY, M.P. BRIDGEN, B.A. EISENBERG, M.S. CUNNINGHAM, J.W. KELLY, C.L. HOLSTEAD, Hypobaric Storage of Floral Crops . . . 1487
- KONZ, S.A., E.A. McCULLOUGH, E.J. ARPIN, B. JONES, F.H. ROHLES, JR., Heat Transfer Characteristics of Clothing Worn in Hot Industrial Environments . . . 1077
- KONZ, S.A., F.H. ROHLES, JR., Showering Behavior: Implications for Water and Energy Conservation . . . 1063
- KOSSON, R.L., S.P. BURG, Heat Transfer under Hypobaric Conditions . . . 1443
- KRAKOW, K.I., S. LIN, A Solar Source Heat Pump with Refrigerant-Cooled Solar Collectors for Cold Climates (RP-247) . . . 417
- KRISHNAKUMAR, C.K., S.F. FIELDS, R.H. HENNINGER, D.A. BETTGE, Evaluating Wind Ventilation in Buildings by Wind Tunnel Tests . . 227
- KROLL, P., S.M. KANE, W.F. BARRON, F.C. PADDISON, GRITS—A Computer Program for Economic Evaluation of Geothermal Energy . . 1323
- KUEHN, T.H., Field Heat-Transfer Measurements and Life-Cycle Cost Analysis of Four Wood Frame Wall Constructions . . . 651
- KURODA, T., K. IIDA, T. YAMAMOTO, H. HIBI, Development of an Energy-Saving-Oriented Variable Capacity System Heat Pump . . . 441
- KUROSAWA, S., M. YOSHIKAWA, The Highest Efficiency Gas Direct-Fired Absorption Water Heater-Chiller . . . 401

L

- LAMB, G.D., D.R. TREE, DOE Test Procedure Setup Measurement Errors for Unitary Air Conditioners: Part 2 . . . 1141
- LAWSON, M.B., G.C. VLIET, R.A. LITHGOW, Water-Lithium Bromide Double-Effect Absorption Cooling Cycle Analysis . . . 811
- LEANEY, D.B., Coping with HVAC Design Parameters North of the 60th Parallel in Canada's Yukon Territory . . . 773
- LEVINS, W.P., The Effect of Location on the Predicted Performance of a Heat Pump Water Heater . . . 585

- LIN, S., K.I. KRAKOW, A Solar Source Heat Pump with Refrigerant-Cooled Solar Collectors for Cold Climates (RP-247) . . . 417
- LINTERIS, G., D.T. HARRJE, K. GADSBY, Sampling for Air Exchange: Rates in a Variety of Buildings . . . 1373
- LITHGOW, R.A., G.C. VLIET, M.B. LAWSON, Water-Lithium Bromide Double-Effect Absorption Cooling Cycle Analysis . . . 811
- LLOYD, J.D., Variable-Speed Compressor Motors Operated on Inverters . . . 633
- LOGEE, T.L., C.J. KELLY, JR., A Comparison of Eight Solar-Driven Absorption Cooling Systems in the National Solar Data Network . . . 1001
- LOWREY, A.H., J.L. REPAGE, Tobacco Smoke, Ventilation, and Indoor Air Quality . . . 895

M

- MALDONADO, E.A.B., J.E. WOODS, G. WINAKOR, S. KIPP, Subjective and Objective Evaluation of a CO₂-Controlled Variable Ventilation System. . 1385
- MANNELL, G.T., R.N. SMITH, P.Y. HSIEH, Heat Transfer in Metal Window Frames and Glass Support Structures . . . 315
- MARSHALL, S.J., S.N. FLANDERS, In Situ Measurement of Masonry Wall Thermal Resistance . . . 677
- McCULLOUGH, E.A., E.J. ARPIN, B. JONES, S.A. KONZ, F.H. ROHLES, JR., Heat Transfer Characteristics of Clothing Worn in Hot Industrial Environments . . . 1077
- MELIKIAN, G., F.R. BIANCARDI, J.W. SITLER, Development and Test of Solar Rankine Cycle Heating and Cooling Systems . . . 971
- MERRICK, R.H., A Direct, Evaporatively Cooled, Three-Ton Lithium Bromide-Water Absorption Chiller for Solar Application . . . 797
- MODERA, M.P., D.T. GRIMSRUD, M.H. SHERMAN, A Predictive Air Infiltration Model—Long-Term Field Test Validation . . . 1351
- MOROFSKY, E.L., District Energy System Analysis (DESA)—A Computer Aided Feasibility Tool . . 1337
- MORRISON, L.S., D.E. CLARIDGE, Heat Pump Water Heaters with a Comparison to Solar Domestic Water Heaters . . . 597

N

- NAGENGAST, B.A., Small Size Automatic Electric Refrigeration—When Did It Start? . . . 953
- NAUERT, J.P., Space Shuttle—Design of Launch Complex HVAC . . . 957
- NELSON, G.C., C.E. DORGAN, W.F. SHARP, Ice-Maker Heat Pump Performance—Reedsburg Center . . . 1271
- NEPHEW, E.A., L.A. ABBATIello, M.L. BALLOU, Residential Water Heating: What's Best for You? . . . 575
- NEPHEW, E.A., V.D. BAXTER, L.A. ABBATIello, Annual Cycle Energy-System Performance and National Economic Comparisons with Competitive Residential HVAC Systems . . . 1279

O

- OLIVIERI, J.B., T. SINGH, The Effect of Supply and

Return Outlets on Stratification: Part 2 (RP-215)	45
---	----

P

PADDISON, F.C., S.M. KANE, W.F. BARRON, P. KROLL, GRITS—A Computer Program for Economic Evaluation of Geothermal Energy . . .	1323
PATANI, A., R.D. JACOBSON, U. BONNE, Energy Conserving Controls for Space-Conditioning Systems	63
PATANI, A., U. BONNE, Analysis of Gas-Engine-Driven Heat Pump Systems	1171
PENG, C.S.P., J.R. HOWELL, Analysis and Simulation of an Efficient Liquid Desiccant System for Warehouse Dehumidification	1097
PEREZ-BLANCO, H., G. GROSSMAN, Conceptual Design and Performance Analysis of Absorption Heat Pumps for Waste Heat Utilization	451
PEREZ-BLANCO, H., G. GROSSMAN, Open-Cycle Absorption Heat Pumps for Low-Grade Heat Utilization	825
PEREZ-BLANCO, H., H.G. ARNOLD, W.R. HUNTLEY, The Steam Ejector as an Industrial Heat Pump	845
PETERSEN, S.R., J.L. HELDENBRAND, The Reference Building—One Approach in the Evolution of Building Energy Performance Criteria for Houses	387
PLATT, D.M., The All-Day, Average-Day Performance of Evacuated Tube Solar Collectors Using Off-Normal Incidence Angle Test Data . .	299

R

RANIERI, M.A., Characteristics of Different Sizes and Types of Intelligent Control Systems	1229
REINKE, K., JR., C.C. ROBERTS, JR., Thermal Measurements of Building Envelope Components in the Field	733
REISMEN, A.W., A Geothermal District-Heating Assessment Model for Decision Making	1297
REPACE, J.L., A.H. LOWREY, Tobacco Smoke, Ventilation, and Indoor Air Quality	895
RICHARD, O.E., Evaluating Design Temperatures for HVAC Applications in Extreme Climates . . .	747
RIVERS, R.D., Predicting Particulate Air Quality in Recirculatory Ventilation Systems	929
ROBERTS, B.M., Influence of Extreme Hot, Humid Climatic Conditions on Air-Conditioning Systems Applications	781
ROBERTS, C.C., JR., K. REINKE, JR., Thermal Measurements of Building Envelope Components in the Field	733
ROHLES, F.H., JR., E.A. McCULLOUGH, E.J. ARPIN, B. JONES, S.A. KONZ, Heat Transfer Characteristics of Clothing Worn in Hot Industrial Environments	1077
ROHLES, F.H., JR., S.A. KONZ, Showering Behavior: Implications for Water and Energy Conservation	1063
ROOLEY, R.H., R.J. EVANS, The Influence of Extreme Warm Climatic Conditions on Air-Conditioning Systems Applications: The Middle East Area	767
ROSS, H., M. GOODMAN, B. BIRDSALL, The Impact of Ventilation Rates on the Design of	

Office Buildings	915
RUDY, J.V., I. TURIEL, Occupant-Generated CO ₂ as an Indicator of Ventilation Rate	197
RUNDQUIST, R.A., Daylighting Energy Savings Algorithm (RP-258)	343

S

SAITO, T., M. SAKAMOTO, Development of a Vaporizing Burner for an Air-Conditioning Unit Ventilator	285
SAKAMOTO, M., T. SAITO, Development of a Vaporizing Burner for an Air-Conditioning Unit Ventilator	285
SASTRY, S.K., D.E. BUFFINGTON, Transpiration Rates of Stored Perishable Commodities: A Mathematical Model and Experiments on Tomatoes	159
SCHADT, H.F., New Fluid Bed, Air-to-Air Heat Exchangers Offer Many Advantages	1215
SCHAEFER, R.W., A Technique for the Use of Color Graphics and Light Pens in Energy Management Applications	1425
SCOTT, K.R., A. FRIESEN, Rapid Cooling of Effluents for Bioassay Tests Using Stored Cooling Capacity of Refrigerated Brine	127
SCHUYLER, G.D., W.C. BROWN, In Situ Measurements of Frame Wall Thermal Resistance	667
SHAH, M.M., Chart Correlation for Saturated Boiling Heat Transfer: Equations and Further Study	185
SHARP, W.F., C.E. DORGAN, G.C. NELSON, Ice-Maker Heat Pump Performance—Reedsburg Center	1271
SHEPPARD, S.V., R.W. JONES, Energy Recovery from the Incineration of Hazardous Liquid Wastes	1205
SHERMAN, M.H., D.T. GRIMSRUD, M.P. MODERA, A Predictive Air Infiltration Model—Long-Term Field Test Validation	1351
SHERMAN, M.H., R.C. SONDEREGGER, J.W. ADAMS, The Determination of the Dynamic Performance of Walls	689
SHIBATA, M., R.H. HOWELL, T. HAYASHI, Characteristics and Design Method for Push-Pull Hoods: Part 1—Cooperation Theory on Airflow	535
SHIBATA, M., R.H. HOWELL, T. HAYASHI, Characteristics and Design Method for Push-Pull Hoods: Part 2—Streamline Analyses of Push-Pull Flows	557
SINGH, T., J.B. OLIVIERI, The Effect of Supply and Return Outlets on Stratification: Part 2 (RP-215)	45
SITLER, J.W., F.R. BIANCARDI, G. MELIKIAN, Development and Test of Solar Rankine Cycle Heating and Cooling Systems	971
SMITH, R.N., P.Y. HSIEH, G.T. MANNELL, Heat Transfer in Metal Window Frames and Glass Support Structures	315
SONDEREGGER, R.C., M.H. SHERMAN, J.W. ADAMS, The Determination of the Dynamic Performance of Walls	689
SPALDING, D.H., Hypobaric Storage of Tropical Fruits	1479

STABY, G.L., M.P. BRIDGEN, B.A. EISENBERG, M.S. CUNNINGHAM, J.W. KELLY, P.S. KONJOIAN, C.L. HOLSTEAD, Hypobaric Storage of Floral Crops	1487
STAMM, R.H., Optimizing HVAC Systems Using Industrial Refrigeration Technology.	1259
STEIMLE, F.W., Developments in Heat-Operated Heat Pumps in West Germany.	859
STROHALLEN, G.M., W.E. ZEISS, The Application of Single-Chip Microprocessors to HVAC Control	1237
SWIM, W.B., Friction Factor and Roughness for Airflow in Plastic Pipes (RP-245)	269

T

TAKAMA, S., Solar System of the Doho Park Gymnasium	1113
TOSCANO, W.M., A.C. HARVEY, A.J. ERICKSON, Research and Development of an Air-Cycle Heat Pump Water Heater.	603
TREE, D.R., G.D. LAMB, DOE Test Procedure Setup Measurement Errors for Unitary Air Conditioners: Part 2	1141
TURIEL, I., J.V. RUDY, Occupant-Generated CO ₂ as an Indicator of Ventilation Rate	197

V

VLIET, G.C., M.B. LAWSON, R.A. LITHGOW, Water-Lithium Bromide Double-Effect Absorption Cooling Cycle Analysis.	811
---	-----

W

WESTPHAL, B., Human Engineering—The Man/System Interface	1435
WILE, D.D., Refrigerant Line Sizing (RP-185)	117
WILLIAMS, V.A., Better Control through Computers	1247

WILLIAMSON, J.S., G. CORCOLEOTES, SOLERAS Solar Cooling Project	1017
WILSON, D.J., Critical Wind Speeds for Maximum Exhaust Gas Reentry from Flush Vents at Roof Level Intakes (RP-136)	503
WILSON, D.J., G. WINKEL, The Effect of Varying Exhaust Stack Height on Contaminant Concentration at Roof Level (RP-204)	515
WINAKOR, G., J.E. WOODS, E.A.B. MALDONADO, S. KIPP, Subjective and Objective Evaluation of a CO ₂ -Controlled Variable Ventilation System. .	1385
WINKEL, G., D.J. WILSON, The Effect of Varying Exhaust Stack Height on Contaminant Concentration at Roof Level (RP-204)	515
WOODS, J.E., G. WINAKOR, E.A.B. MALDONADO, S. KIPP, Subjective and Objective Evaluation of a CO ₂ -Controlled Variable Ventilation System	1385

Y

YAMAMOTO, T., K. IIDA, T. KURODA, H. HIBI, Development of an Energy-Saving-Oriented Variable Capacity System Heat Pump	441
YAMAZAKI, K., Factorial Analysis on Conditions Affecting the Sense of Comfort of Workers in the Air-Conditioned Working Environment.	241
YELLOTT, J.I., Operation of an Active Solar Air-Conditioning System in a Hot, Dry Climate	987
YOSHIKAWA, M., S. KUROSAWA, The Highest Efficiency Gas Direct-Fired Absorption Water Heater-Chiller.	401
YOUNG, R.A., C.D. HOLLOWELL, J.V. BERK, S.R. BROWN, Energy-Conserving Retrofits and Indoor Air Quality in Residential Housing.	875

Z

ZEISS, W.E., G.M. STROHALLEN, The Application of Single-Chip Microprocessors to HVAC Control	1237
--	------



INDEX OF TECHNICAL AND SYMPOSIUM PAPERS VOLUME 88, PARTS I AND II

TITLES

A

- Adiabatic Absorption and Desorption for Improvement of Temperature-Boosting Absorption Heat Pumps, G. GROSSMAN II 359
- Airflow and Multiroom Thermal Analysis, G.N. WALTON II 78
- Air-Velocity Fluctuations in the Occupied Zone of Ventilated Spaces, J. THORSHAUGE II 753
- Algorithm for Modeling a Direct Expansion Air-Cooled Condensing Unit, An, D.C. HITTLE II 655
- Analysis of a Rankine Cycle Air-Conditioning System, M.O. NAZER, S.M. ZUBAIR II 332
- Analysis of the Conservation Impacts of ASHRAE 90A-1980, D.M. HAMBLIN, T.A. VINEYARD II 92
- Approach to Support the Development of Absorption System Technology in Japan, An, K. WATANABE, M. AKIMOTO, S. OHTSUKA II 492

C

- Combustion of Wood, K. LEPPA, T. SAARNI II 577
- Comparison of Domestic Olivine and European Magnesite for Electrically Charged Thermal Energy Storage, W.R. LASTER, B.M. GAY, R.J. SCHOENHALS, H. PALMOUR, III II 717
- Comparison of Field Performance to Steady State Performance for Two Dealer-Installed Air-to-Air Heat Pumps, V.D. BAXTER, L.A. ABBATIello, R.E. MINTURN II 941
- Congruent-Melting Phase-Change Heat Storage Materials, G.A. LANE II 1043
- Conversion to Wood Fuel, O.A. SEPPANEN II 622
- Cooling Loads from Solar Radiation through Partially Shaded Windows, Taking Heat Storage Effect into Account, B. TODOROVIC II 924

D

- Degree-Days Method for Simplified Energy Analysis (RP-251), R.D. FISCHER, L.J. FLANIGAN, S.G. TALBERT, D. JAFFE II 522
- Design and Laboratory Testing of an Unequal Parallel Multicompressor Supermarket Refrigeration System, W.M. TOSCANO, M.J. OVEN, D.H. WALKER, E.A. VINEYARD, W.L. COOPER, JR. II 1084
- Design and Operating Experience of the Pagosa Springs, Colorado, Geothermal District Heating and Distribution System, K.L. GARING, S.W. GOERING II 729

- Design of Multifamily Solar Domestic Hot Water Systems Using Recirculating Distribution, D.R. WEDEKIND II 413
- Determination of Temperature Profiles and Loads in a Thermally Stratified, Air-Conditioned System: Part 1—Model Studies, R.L. GORTON, M.M. SASSI II 14
- Determination of Temperature Profiles and Loads in a Thermally Stratified, Air-Conditioned System: Part 2—Program Description and Comparison of Computed and Measured Results, R.L. GORTON, M.M. SASSI II 33
- Development of Air-Cooling Heat Exchangers with Rough-Surface Louvered Fins, M. ITOH, H. KIMURA, T. TANAKA, M. MUSOH II 218
- Development of Equipment Seasonal Performance Models for Simplified Energy Analysis Methods, T. KUSUDA, T. ALEREZA, L. HOVANDER II 249
- Direct Digital Control of a Pneumatically Actuated Air-Handling Unit, W.B. MAY, B.A. BORRESEN, C.W. HURLEY II 857
- DOE Passive Solar Commercial Buildings Program: Analytical Approaches and Lessons Learned, G.K. HART, T.L. KURKOWSKI, H.T. GORDON, R.G. SHIBLEY II 908
- Dynamic Performance of a Discharge Air-Temperature System with a P-I Controller, The, G. SHAVIT, S.G. BRANDT II 826

E

- Economic Viability of Combined Solar/Gas Systems for Residential Space Conditioning, The, K.D. HALL, JR., S.A. HAAS, K.G. DAVIDSON II 402
- Effect of Air Turbulence on the Rate of Frost Growth on a Horizontal Flat Plate, The, D.W. SCHULTE, R.H. HOWELL II 201
- Effect of Body Posture and Activity on the Thermal Insulation of Clothing: Measurements by a Movable Thermal Manikin, B.W. OLESEN, E. SLIWINSKA, T.L. MADSEN, P.O. FANGER II 791
- Effect of Radiant Cooling Panels on Temperature Stratification (RP-260), T. SINGH, J.B. OLIVIERI II 3
- Engineering and Manufacture of a High Efficiency, Automatic Defrost Refrigerator-Freezer, The, R.H. BOHMAN, R.L. HARRISON II 1053
- Evaluation of ASHRAE Standard 94.2 for Testing Electrically Charged Thermal Energy Storage Central Units, An, M.R. ELTER, C.P. LIN, R.J. SCHOENHALS II 679

Evaluation of ASHRAE Standard 94.2 for Testing Electrically Charged Thermal Energy Storage Room-Sized Units, An, H.F. KUEHLER, S.H. ANDERSON, W.R. LASTER, L.W. STEVENS, R.J. SCHOENHALS, H. HERSH	II	696
Evaluation of Corrected Effective Temperature and Index of Thermal Stress for Tropical Zones, M.A. ABDELRAHMAN	II	457
Evaluation of the FCHART/SLR Solar Design Process, M.W. FANNING	II	890
Experience with Thermal Storage in Tanks of Stratified Water for Solar Heating and Load Management, M.W. WILDIN, M.P. WITKOF-SKY, J.M. NOBLE, R.E. HOPPER, JR., P.G. STROMBERG	II	1018
Experimental Study on the Dynamic Characteristics of a Heat Pump, N. TANAKA, G. YAMANAKA, M. IKEUCHI	II	323
Exploration of Air Velocity across Air-Conditioning System Dehumidifiers—An Energy Conservation Project, A. SHAW	II	142

F

F-Load, A Building Heating Load Calculation Program, W.A. BECKMAN, J.A. DUFFIE, S.A. KLEIN, J.W. MITCHELL	II	875
Field Test of a High Efficiency, Automatic Defrost Refrigerator-Freezer, R.F. TOPPING, E.A. VINEYARD	II	1064
Field Testing Energy-Saving Hermetic Compressors in Residential Refrigerators, R.G. SAUBER, M.G. MIDDLETON	II	1074
Fire-Safe Sanctuaries: A Viable Alternative for Life Safety in High-Rise Buildings (RP-211), R.K. PEFLEY, F.C. ALLEN	II	440
Flow Distribution Improvements in Vertical Rock Beds for Solar Energy Thermal Storage, D.E. JONES, W. LOSS	II	1036

G

Generalized Modeling and Simulation Software Tools for Building Systems, R. BENTON, J.W. MACARTHUR, J.K. MAHESH, J.P. COCKROFT ..	II	839
---	----	-----

I

Investigation of a Novel Transverse Flow Fan with Secondary Inlet and Adjustable Control Vane, J.W. HOLLENBERG, O.R. WALCHUK, D.E. SUTORIUS	II	50
---	----	----

L

Low-Temperature Geothermal Heating Systems at Two Greenhouse Facilities, J.F. KUNZE, M.V. HYNDMAN, R.W. GOULD, R.M. WRIGHT	II	737
--	----	-----

M

Modified Jacketed Cold Storage Design, A, D.C. LEHMANN, J.E. FERGUSON	II	228
---	----	-----

N

Noncondensable Gases in Shell-Side Refrigerant Condensers (RP-225), A.S. WANNIARACHCHI, R.L. WEBB	II	170
---	----	-----

O

On the Design of Stratified Thermal Storage Tanks, W.D. BAINES, W.W. MARTIN, L.A. SINCLAIR ..	II	426
Optimized Two-Capacity Advanced Electric Heat Pump, An, S.E. VEYO	II	988
Optimum Control Policies to Minimize Energy Use in HVAC Systems, A. KAYA, C.S. CHEN, S. RAINA, S.J. ALEXANDER	II	235

P

Performance Analysis of Split versus Package Type Residential Air Conditioners, A, W.E. MURPHY, V.W. GOLDSCHMIDT	II	346
Performance of a Residential Off-Peak Electric Heating and Cooling Storage System with Solar Input, J.F. McCONNELL	II	1028
Performance Predictions of Air-to-Air Heat Pumps Using Generalized Weather Distribution, J.V. ANDERSON, J.W. MITCHELL, W.A. BECKMAN ..	II	307
Personality Factors in Thermal Acceptability and Comfort, J.A. CARLTON-FOSS, F.H. ROHLES, JR.	II	776
Plan for Establishing Computational Algorithms as ASHRAE Literature, A, D.W. LOW, E.F. SOWELL	II	637
Proposed TC 4.7 Simplified Energy Analysis Procedure, The, I. SUD, T. KUSUDA	II	263
Pseudoshadows for Site Planning, R.W. WHITE ..	II	368

Q

Questionnaire to Measure Environmental and Sensory Factors Associated with Personal Comfort and Acceptability of Indoor Environments, A, G. WINAKOR	II	470
---	----	-----

R

Radiant Heating and Control for Comfort during Transient Conditions, L. BERGLUND, R. RASCATI, M.L. MARKEL	II	765
---	----	-----

S

Short-Tube Refrigerant Flow Restrictors, V.C. MEI ..	II	157
Simple Functional Representations for the Thermophysical Properties of Gases at Standard Pressure, A.M. CLAUSING	II	645
Simulation to Study HVAC Process Dynamics, A, D.E. MILLER	II	809
State-Space Method for the Calculation of Air-Conditioning Loads and the Simulation of Thermal Behavior of the Room, J. YI	II	122
Steady State Computer Simulation Model for Air-to-Air Heat Pumps, A, A.E. DABIRI	II	973
Steady State Simulation of a Single Tube-Finned Condenser Heat Exchanger, N.K. ANAND, D.R. TREE	II	185

T

Testing and Evaluation of Btu (Heat) Meters Used for Measuring Solar System Performance, G.R. GUINN, L.L. HUMMER	II	388
--	----	-----

Thermal Load and Computer Simulation Run-Time Comparison Using a Research Version of DOE-2, R. SULLIVAN, S. NOZAKI, Z.O. CUMALI	II	278
Thermally Stratified Tanks, R.L. COLE, F.O. BELLINGER	II	1005
Tobacco Smoke Dilution Recommendations for Comfortable Ventilation, W.W. THAYER	II	291
Trends of Residential Air-Conditioning Cyclic Tests, H.V. NGUYEN, V.W. GOLDSCHMIDT, S.B. THOMAS, D.R. TREE	II	954

U

Use of Acoustic Intensity Measurements to Eval-		
---	--	--

uate the Sampling Tube Method of Measuring In-Duct Fan Sound Power (RP-264), J. ROLAND, M.J. CROCKER, M. SANDBAKKEN	II	66
---	----	----

W

Wood Fuel in Fluidized Bed Boilers, M.J. VIRR	II	615
Wood Fuel in Suspension Burners, P.C. WOLLE . .	II	597
Wood Fuel Resources in the United States, J.R. HORNICK	II	590
Woodstove Efficiency Determination Using Stack-Loss Methods: Sensitivity to Measurement Errors and Assumed Elemental Analysis, D.R. JAASMA	II	507

AUTHORS

A

- ABBATIello, L.A., V.D. BAXTER, R.E. MINTURN, Comparison of Field Performance to Steady State Performance for Two Dealer-Installed Air-to-Air Heat Pumps II 941
- ABDELRAHMAN, M.A., Evaluation of Corrected Effective Temperature and Index of Thermal Stress for Tropical Zones. II 457
- AKIMOTO, M., K. WATANABE, S. OHTSUKA, An Approach to Support the Development of Absorption System Technology in Japan. II 492
- ALEREZA, T., T. KUSUDA, L. HOVANDER, Development of Equipment Seasonal Performance Models for Simplified Energy Analysis Methods II 249
- ALEXANDER, S.J., A. KAYA, C.S. CHEN, S. RAINA, Optimum Control Policies to Minimize Energy Use in HVAC Systems II 235
- ALLEN, F.C., R.K. PEFLEY, Fire-Safe Sanctuaries: A Viable Alternative for Life Safety in High-Rise Buildings (RP-211) II 440
- ANAND, N.K., D.R. TREE, Steady State Simulation of a Single Tube-Finned Condenser Heat Exchanger II 185
- ANDERSON, J.V., J.W. MITCHELL, W.A. BECKMAN, Performance Predictions of Air-to-Air Heat Pumps Using Generalized Weather Distribution. II 307
- ANDERSON, S.H., H.F. KUEHLER, W.R. LASTER, L.W. STEVENS, R.J. SCHOENHALS, H. HERSH, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Room-Size Units II 696

B

- BAINES, W.D., W.W. MARTIN, L.A. SINCLAIR, On the Design of Stratified Thermal Storage Tanks II 426
- BAXTER, V.D., L.A. ABBATIello, R.E. MINTURN, Comparison of Field Performance to Steady State Performance for Two Dealer-Installed Air-to-Air Heat Pumps II 941
- BECKMAN, W.A., J.A. DUFFIE, S.A. KLEIN, J.W. MITCHELL, F-Load, A Building Heating-Load Calculation Program II 875
- BECKMAN, W.A., J.V. ANDERSON, J.W. MITCHELL, Performance Predictions of Air-to-Air Heat Pumps Using Generalized Weather Distribution. II 307
- BELLINGER, F.O., R.L. COLE, Thermally Stratified Tanks II 1005
- BENTON, R., J.W. MacARTHUR, J.K. MAHESH, J.P. COCKROFT, Generalized Modeling and Simulation Tools for Building Systems. II 839
- BERGLUND, L., R. RASCATI, M.L. MARKEL, Radiant Heating and Control for Comfort during Transient Conditions II 765
- BOHMAN, R.H., R.L. HARRISON, The Engineering and Manufacture of a High Efficiency, Automatic Defrost Refrigerator-Freezer II 1053

- BORRESEN, B.A., W.B. MAY, C.W. HURLEY, Direct Digital Control of a Pneumatically Actuated Air-Handling Unit. II 857
- BRANDT, S.G., G. SHAVIT, The Dynamic Performance of a Discharge Air-Temperature System with a P-I Controller II 826

C

- CARLTON-FOSS, J.A., F.H. ROHLES, JR., Personality Factors in Thermal Acceptability and Comfort II 776
- CHEN, C.S., A. KAYA, S. RAINA, S.J. ALEXANDER, Optimum Control Policies to Minimize Energy Use in HVAC Systems II 235
- CLAUSING, A.M., Simple Functional Representations for the Thermophysical Properties of Gases at Standard Pressure II 645
- COCKROFT, J.P., R. BENTON, J.W. MacARTHUR, J.K. MAHESH, Generalized Modeling and Simulation Software Tools for Building Systems II 839
- COLE, R.L., F.O. BELLINGER, Thermally Stratified Tanks II 1005
- COOPER, W.L., JR., W.M. TOSCANO, M.J. OVEN, D.H. WALKER, E.A. VINEYARD, Design and Laboratory Testing of an Unequal Parallel Multicompressor Supermarket Refrigeration System II 1084
- CROCKER, M.J., J. ROLAND, M. SANDBAKKEN, Use of Acoustic Intensity Measurements to Evaluate the Sampling Tube Method of Measuring In-Duct Fan Sound Power (RP-264) . II 66
- CUMALI, Z.O., R. SULLIVAN, S. NOZAKI, Thermal Load and Computer Simulation Run-Time Comparisons Using a Research Version of DOE-2. II 278

D

- DABIRI, A.E., A Steady State Computer Simulation Model for Air-to-Air Heat Pumps II 973
- DAVIDSON, K.G., K.D. HALL, JR., S.A. HAAS, The Economic Viability of Combined Solar/Gas Systems for Residential Space Conditioning. . . II 402
- DUFFIE, J.A., W.A. BECKMAN, S.A. KLEIN, J.W. MITCHELL, F-Load, A Building Heating-Load Calculation Program II 875

E

- ELTER, M.R., C.P. LIN, R.J. SCHOENHALS, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Central Units. II 679

F

- FANGER, P.O., B.W. OLESEN, E. SLIWINSKA, T.L. MADSEN, Effect of Body Posture and Activity on the Thermal Insulation of Clothing: Measurements by a Movable Thermal Manikin . II 791
- FANNING, M.W., Evaluation of the FCHART/SLR Solar Design Process. II 890

FERGUSON, J.E., D.C. LEHMANN, A Modified Jacketed Cold Storage Design	II 228
FISCHER, R.D., L.J. FLANIGAN, S.G. TALBERT, D. JAFFE, Degree-Days Method for Simplified Energy Analysis (RP-251)	II 522
FLANIGAN, L.J., R.D. FISCHER, S.G. TALBERT, D. JAFFE, Degree-Days Method for Simplified Energy Analysis (RP-251)	II 522

G

GARING, K.L., S.W. GOERING, Design and Operating Experience of the Pagosa Springs, Colorado, Geothermal District Heating and Distribution System	II 729
GAY, B.M., W.R. LASTER, R.J. SCHOENHALS, H. PALMOUR, III, Comparison of Domestic Olivine and European Magnesite for Electrically Charged Thermal Energy Storage	II 717
GOERING, S.W., K.L. GARING, Design and Operating Experience of the Pagosa Springs, Colorado, Geothermal District Heating and Distribution System	II 729
GOLDSCHMIDT, V.W., H.V. NGUYEN, S.B. THOMAS, D.R. TREE, Trends of Residential Air-Conditioning Cyclic Tests	II 954
GOLDSCHMIDT, V.W., W.E. MURPHY, A Performance Analysis of Split versus Package Type Residential Air Conditioners	II 346
GORDON, H.T., G.K. HART, T.L. KURKOWSKI, R.G. SHIBLEY, DOE Passive Solar Commercial Buildings Program: Analytical Approaches and Lessons Learned	II 908
GORTON, R.L., M.M. SASSI, Determination of Temperature Profiles and Loads in a Thermally Stratified, Air-Conditioned System: Part 1—Model Studies	II 14
GORTON, R.L., M.M. SASSI, Determination of Temperature Profiles and Loads in a Thermally Stratified, Air-Conditioned System: Part 2—Program Description and Comparison of Computed and Measured Results	II 33
GOULD, R.W., J.F. KUNZE, M.V. HYNDMAN, R.M. WRIGHT, Low-Temperature Geothermal Heating Systems at Two Greenhouse Facilities	II 737
GROSSMAN, G., Adiabatic Absorption and Desorption for Improvement of Temperature-Boosting Absorption Heat Pumps	II 359
GUINN, G.R., L.L. HUMMER, Testing and Evaluation of Btu (Heat) Meters Used for Measuring Solar System Performance	II 388

H

HAAS, S.A., K.D. HALL, JR., K.G. DAVIDSON, The Economic Viability of Combined Solar/Gas Systems for Residential Space Conditioning	II 402
HALL, K.D., JR., S.A. HAAS, K.G. DAVIDSON, The Economic Viability of Combined Solar/Gas Systems for Residential Space Conditioning	II 402
HAMBLIN, D.M., T.A. VINEYARD, Analysis of the Conservation Impacts of ASHRAE 90A-1980	II 92
HARRISON, R.L., R.H. BOHMAN, The Engineering and Manufacture of a High Efficiency, Automatic Defrost Refrigerator-Freezer	II 1053

HART, G.K., T.L. KURKOWSKI, H.T. GORDON, R.G. SHIBLEY, DOE Passive Solar Commercial Buildings Program: Analytical Approaches and Lessons Learned	II 908
HERSH, H., H.F. KUEHLER, S.H. ANDERSON, W.R. LASTER, L.W. STEVENS, R.J. SCHOENHALS, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Room-Size Units	II 696
HITTLE, D.C., An Algorithm for Modeling a Direct Expansion Air-Cooled Condensing Unit	II 655
HOLLENBERG, J.W., O.R. WALCHUK, D.E. SUTORIUS, Investigation of a Novel Transverse Flow Fan with Secondary Inlet and Adjustable Control Vane	II 50
HOPPER, R.E., JR., M.W. WILDIN, M.P. WITKOFISKY, J.M. NOBLE, P.G. STROMBERG, Experience with Thermal Storage in Tanks of Stratified Water for Solar Heating and Load Management	II 1018
HORNICK, J.R., Wood Fuel Resources in the United States	II 590
HOVANDER, L., T. KUSUDA, T. ALEREZA, Development of Equipment Seasonal Performance Models for Simplified Energy Analysis Methods	II 249
HOWELL, R.H., D.W. SCHULTE, The Effect of Air Turbulence on the Rate of Frost Growth on a Horizontal Flat Plate	II 201
HUMMER, L.L., G.R. GUINN, Testing and Evaluation of Btu (Heat) Meters Used for Measuring Solar System Performance	II 388
HURLEY, C.W., W.B. MAY, B.A. BORRESEN, Direct Digital Control of a Pneumatically Actuated Air-Handling Unit	II 857
HYNDMAN, M.V., J.F. KUNZE, R.W. GOULD, R.M. WRIGHT, Low-Temperature Geothermal Heating Systems at Two Greenhouse Facilities	II 737

I

IKEUCHI, M., N. TANAKA, G. YAMANAKA, Experimental Study on the Dynamic Characteristics of a Heat Pump	II 323
ITOH, M., H. KIMURA, T. TANAKA, M. MUSOH, Development of Air-Cooling Heat Exchangers with Rough Surface Louvered Fins	II 218

J

JAASMA, D.R., Woodstove Efficiency Determination Using Stack-Loss Methods: Sensitivity to Measurement Errors and Assumed Elemental Analysis	II 507
JAFFE, D., R.D. FISCHER, L.J. FLANIGAN, S.G. TALBERT, Degree-Days Method for Simplified Energy Analysis (RP-251)	II 522
JONES, D.E., W. LOSS, Flow Distribution Improvements in Vertical Rock Beds for Solar Energy Thermal Storage	II 1036

K

KAYA, A., C.S. CHEN, S. RAINA, S.J. ALEXANDER, Optimum Control Policies to Minimize Energy Use in HVAC Systems	II 235
--	--------

KIMURA, H., M. ITOH, T. TANAKA, M. MUSOH, Development of Air-Cooling Heat Exchangers with Rough-Surface Louvered Fins	II 218
KLEIN, S.A., W.A. BECKMAN, J.A. DUFFIE, J.W. MITCHELL, F-Load, A Building Heating-Load Calculation Program	II 875
KUEHLER, H.F., S.H. ANDERSON, W.R. LASTER, L.W. STEVENS, R.J. SCHOENHALS, H. HERSH, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Room-Size Units	II 696
KUNZE, J.F., M.V. HYNDMAN, R.W. GOULD, R.M. WRIGHT, Low-Temperature Geothermal Heating Systems at Two Greenhouse Facilities	II 737
KURKOWSKI, T.L., G.K. HART, H.T. GORDON, R.G. SHIBLEY, DOE Passive Solar Commercial Buildings Program: Analytical Approaches and Lessons Learned	II 908
KUSUDA, T., I. SUD, The Proposed TC 4.7 Simplified Energy Analysis Procedure	II 263
KUSUDA, T., T. ALEREZA, L. HOVANDER, Development of Equipment Seasonal Performance Models for Simplified Energy Analysis Methods	II 249
L	
LANE, G.A., Congruent-Melting Phase-Change Heat Storage Materials	II 1043
LASTER, W.R., B.M. GAY, R.J. SCHOENHALS, H. PALMOUR, III, Comparison of Domestic Olivine and European Magnesite for Electrically Charged Thermal Energy Storage	II 717
LASTER, W.R., H.F. KUEHLER, S.H. ANDERSON, L.W. STEVENS, R.J. SCHOENHALS, H. HERSH, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Room-Size Units	II 696
LEHMANN, D.C., J.E. FERGUSON, A Modified Jacketed Cold Storage Design	II 228
LEPPA, K., T. SAARNI, Combustion of Wood	II 577
LIN, C.P., M.R. ELTER, R.J. SCHOENHALS, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Central Units	II 679
LOSS, W., D.E. JONES, Flow Distribution Improvements in Vertical Rock Beds for Solar Energy Thermal Storage	II 1036
LOW, D.W., E.F. SOWELL, A Plan for Establishing Computational Algorithms as ASHRAE Literature	II 637
M	
MacARTHUR, J.W., R. BENTON, J.K. MAHESH, J.P. COCKROFT, Generalized Modeling and Simulation Software Tools for Building Systems	II 839
MADSEN, T.L., B.W. OLESEN, E. SLIWINSKA, P.O. FANGER, Effect of Body Posture and Activity on the Thermal Insulation of Clothing: Measurements by a Movable Thermal Manikin	II 791
MAHESH, J.K., R. BENTON, J.W. MacARTHUR, J.P. COCKROFT, Generalized Modeling and Simulation Software Tools for Building Systems	II 839
MARKEL, M.L., L. BERGLUND, R. RASCATI, Radiant Heating and Control for Comfort during Transient Conditions	II 765
MARTIN, W.W., W.D. BAINES, L.A. SINCLAIR, On the Design of Stratified Thermal Storage Tanks	II 426
MAY, W.B., B.A. BORRESEN, C.W. HURLEY, Direct Digital Control of a Pneumatically Actuated Air-Handling Unit	II 857
McCONNELL, J.F., Performance of a Residential Off-Peak Electric Heating and Cooling Storage System with Solar Input	II 1028
MEI, V.C., Short-Tube Refrigerant Flow Restrictors	II 157
MIDDLETON, M.G., R.G. SAUBER, Field Testing Energy-Saving Hermetic Compressors in Residential Refrigerators	II 1074
MILLER, D.E., A Simulation to Study HVAC Process Dynamics	II 809
MINTURN, R.E., V.D. BAXTER, L.A. ABBATIello, Comparison of Field Performance to Steady State Performance for Two Dealer-Installed Air-to-Air Heat Pumps	II 941
MITCHELL, J.W., J.V. ANDERSON, W.A. BECKMAN, Performance Predictions of Air-to-Air Heat Pumps Using Generalized Weather Distribution	II 307
MITCHELL, J.W., W.A. BECKMAN, J.A. DUFFIE, S.A. KLEIN, F-Load, A Building Heating-Load Calculation Program	II 875
MURPHY, W.E., V.W. GOLDSCHMIDT, A Performance Analysis of Split versus Package Type Residential Air Conditioners	II 346
MUSOH, M., M. ITOH, H. KIMURA, T. TANAKA, Development of Air-Cooling Heat Exchangers with Rough-Surface Louvered Fins	II 218
N	
NAZER, M.O., S.M. ZUBAIR, Analysis of a Rankine Cycle Air-Conditioning System	II 332
NGUYEN, H.V., V.W. GOLDSCHMIDT, S.B. THOMAS, D.R. TREE, Trends of Residential Air-Conditioning Cyclic Tests	II 954
NOBLE, J.M., M.W. WILDIN, M.P. WITKOFsky, R.E. HOPPER, JR., P.G. STROMBERG, Experience with Thermal Storage in Tanks of Stratified Water for Solar Heating and Load Management	II 1018
NOZAKI, S., R. SULLIVAN, Z.O. CUMALI, Thermal Load and Computer Simulation Run-Time Comparisons Using a Research Version of DOE-2	II 278
O	
OHTSUKA, S., K. WATANABE, M. AKIMOTO, An Approach to Support the Development of Absorption System Technology in Japan	II 492
OLESEN, B.W., E. SLIWINSKA, T.L. MADSEN, P.O. FANGER, Effect of Body Posture and Activity on the Thermal Insulation of Clothing: Measurements by a Movable Thermal Manikin	II 791
OLIVIERI, J.B., T. SINGH, Effect of Radiant Cooling Panels on Temperature Stratification (RP-260)	II 3
OVEN, M.J., W.M. TOSCANO, D.H. WALKER, E.A. VINEYARD, W.L. COOPER, JR., Design and Laboratory Testing of an Unequal Parallel Multicompressor Supermarket Refrigeration System	II 1084
P	
PALMOUR, H., III, W.R. LASTER, B.M. GAY, R.J. SCHOENHALS, Comparison of Domestic Olivine and European Magnesite for Electrically Charged Thermal Energy Storage	II 717

PEFLEY, R.K., F.C. ALLEN, Fire-Safe Sanctuaries: A Viable Alternative for Life Safety in High-Rise Buildings (RP-211)	II 440
---	--------

R

RAINA, S., A. KAYA, C.S. CHEN, S.J. ALEX- ANDER, Optimum Control Policies to Minimize Energy Use in HVAC Systems	II 235
RASCATI, R., L. BERGLUND, M.L. MARKEL, Radi- ant Heating and Control for Comfort during Transient Conditions	II 765
ROHLES, F.H., JR., J.A. CARLTON-FOSS, Per- sonality Factors in Thermal Acceptability and Comfort	II 776
ROLAND, J., M.J. CROCKER, M. SANDBAKKEN, Use of Acoustic Intensity Measurements to Evaluate the Sampling Tube Method of Measuring In-Duct Fan Sound Power (RP-264)	II 66

S

SAARNI, T., K. LEPPA, Combustion of Wood.	II 577
SANDBAKKEN, M., J. ROLAND, M.J. CROCKER, Use of Acoustic Intensity Measurements to Evaluate the Sampling Tube Method of Measuring In-Duct Fan Sound Power (RP-264)	II 66
SASSI, M.M., R.L. GORTON, Determination of Temperature Profiles and Loads in a Thermally Stratified, Air-Conditioned System: Part 1— Model Studies	II 14
SASSI, M.M., R.L. GORTON, Determination of Temperature Profiles and Loads in a Thermally Stratified, Air-Conditioned System: Part 2— Program Description and Comparison of Computed and Measured Results	II 33
SAUBER, R.G., M.G. MIDDLETON, Field Testing Energy-Saving Hermetic Compressors in Residential Refrigerators	II 1074
SCHOENHALS, R.J., H.F. KUEHLER, S.H. AN- DERSON, W.R. LASTER, L.W. STEVENS, H. HERSH, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Room-Size Units.	II 696
SCHOENHALS, R.J., M.R. ELTER, C.P. LIN, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Central Units.	II 679
SCHOENHALS, R.J., W.R. LASTER, B.M. GAY, H. PALMOUR, III, Comparison of Domestic Olivine and European Magnesite for Electrically Charged Thermal Energy Storage	II 717
SCHULTE, D.W., R.H. HOWELL, The Effect of Air Turbulence on the Rate of Frost Growth on a Horizontal Flat Plate.	II 201
SEPPANEN, O.A., Conversion to Wood Fuel	II 622
SHAVIT, G., S.G. BRANDT, The Dynamic Perfor- mance of a Discharge Air-Temperature System with a P-I Controller	II 826
SHAW, A., Exploration of Air Velocity across Air- Conditioning System Dehumidifiers—An Energy Conservation Project	II 142
SHIBLEY, R.G., G.K. HART, T.L. KURKOWSKI, H.T. GORDON, DOE Passive Solar Com- mercial Buildings Program: Analytical Ap- proaches and Lessons Learned.	II 908
SINCLAIR, L.A., W.D. BAINES, W.W. MARTIN, On the Design of Stratified Thermal Storage	

Tanks	II 426
SINGH, T., J.B. OLIVIERI, Effect of Radiant Cool- ing Panels on Temperature Stratification (RP- 260)	II 3
SLIWINSKA, E., B.W. OLESEN, T.L. MADSEN, P.O. FANGER, Effect of Body Posture and Activity on the Thermal Insulation of Clothing: Measurements by a Movable Thermal Manikin	II 791
SOWELL, E.F., D.W. LOW, A Plan for Establishing Computational Algorithms as ASHRAE Literature	II 637
STEVENS, L.W., H.F. KUEHLER, S.H. ANDER- SON, W.R. LASTER, R.J. SCHOENHALS, H. HERSH, An Evaluation of ASHRAE Standard 94.2 for Testing of Electrically Charged Thermal Energy Storage Room-Size Units.	II 696
STROMBERG, P.G., M.W. WILDIN, M.P. WIT- KOFKY, J.M. NOBLE, R.E. HOPPER, JR., Experience with Thermal Storage in Tanks of Stratified Water for Solar Heating and Load Management	II 1018
SUD, I., T. KUSUDA, The Proposed TC 4.7 Simpli- fied Energy Analysis Procedure.	II 263
SULLIVAN, R., S. NOZAKI, Z.O. CUMALI, Thermal Load and Computer Simulation Run-Time Comparisons Using a Research Version of DOE-2.	II 278
SUTORIUS, D.E., J.W. HOLLENBERG, O.R. WAL- CHUK, Investigation of a Novel Transverse Flow Fan with Secondary Inlet and Adjustable Control Vane.	II 50

T

TALBERT, S.G., R.D. FISCHER, L.J. FLANIGAN, D. JAFFE, Degree-Days Method for Simplified Energy Analysis (RP-251)	II 522
TANAKA, N., G. YAMANAKA, M. IKEUCHI, Ex- perimental Study on the Dynamic Charac- teristics of a Heat Pump.	II 323
TANAKA, T., M. ITOH, H. KIMURA, M. MUSOH, Development of Air-Cooling Heat Exchangers with Rough-Surface Louvered Fins	II 218
THAYER, W.W., Tobacco Smoke Dilution Recommendations for Comfortable Ventilation.	II 291
THOMAS, S.B., H.V. NGUYEN, V.W. GOLD- SCHMIDT, D.R. TREE, Trends of Residential Air-Conditioning Cyclic Tests.	II 954
THORSHAUGE, J., Air-Velocity Fluctuations in the Occupied Zone of Ventilated Spaces.	II 753
TODOROVIC, B., Cooling Loads from Solar Radiation through Partially Shaded Windows, Taking Heat Storage Effect into Account.	II 924
TOPPING, R.F., E.A. VINEYARD, Field Test of a High Efficiency, Automatic Defrost Refrigerator-Freezer	II 1064
TOSCANO, W.M., M.J. OVEN, D.H. WALKER, E.A. VINEYARD, W.L. COOPER, JR., Design and Laboratory Testing of an Unequal Parallel Multicompressor Supermarket Refrigeration System	II 1084
TREE, D.R., H.V. NGUYEN, V.W. GOLDSCHMIDT, S.B. THOMAS, Trends of Residential Air- Conditioning Cyclic Tests.	II 954
TREE, D.R., N.K. ANAND, Steady State Simu- lation of a Single Tube-Finned Condenser Heat Exchanger	II 185

V

- VEYO, S.E., An Optimized Two-Capacity Advanced Electric Heat Pump II 988
- VINEYARD, E.A., R.F. TOPPING, Field Test of a High Efficiency, Automatic Defrost Refrigerator-Freezer II 1064
- VINEYARD, E.A., W.M. TOSCANO, M.J. OVEN, D.H. WALKER, W.L. COOPER, JR., Design and Laboratory Testing of an Unequal Parallel Multi-compressor Supermarket Refrigeration System II 1084
- VINEYARD, T.A., D.M. HAMBLIN, Analysis of the Conservation Impacts of ASHRAE 90A-1980 II 92
- VIRR, M.J., Wood Fuel in Fluidized Bed Boilers II 615

W

- WALCHUK, O.R., J.W. HOLLENBERG, D.E. SUTORIUS, Investigation of a Novel Transverse Flow Fan with Secondary Inlet and Adjustable Control Vane II 50
- WALKER, D.H., W.M. TOSCANO, M.J. OVEN, E.A. VINEYARD, W.L. COOPER, JR., Design and Laboratory Testing of an Unequal Parallel Multi-compressor Supermarket Refrigeration System II 1084
- WALTON, G.N., Airflow and Multiroom Thermal Analysis II 78
- WANNIARACHCHI, A.S., R.L. WEBB, Noncondensable Gases in Shell-Side Refrigerant Condensers (RP-225) II 170
- WATANABE, K., M. AKIMOTO, S. OHTSUKA, An Approach to Support the Development of Absorption System Technology in Japan II 492
- WEBB, R.L., A.S. WANNIARACHCHI, Noncondensable Gases in Shell-Side Refrigerant Condensers (RP-225) II 170

- WEDEKIND, D.R., Design of Multifamily Solar Domestic Hot Water Systems Using Recirculating Distribution II 413
- WHITE, R.W., Pseudoshadows for Site Planning II 368
- WILDIN, M.W., M.P. WITKOFISKY, J.M. NOBLE, R.E. HOPPER, JR., P.G. STROMBERG, Experience with Thermal Storage in Tanks of Stratified Water for Solar Heating and Load Management II 1018
- WINAKOR, G., A Questionnaire to Measure Environmental and Sensory Factors Associated with Personal Comfort and Acceptability of Indoor Environments II 470
- WITKOFISKY, M.P., M.W. WILDIN, J.M. NOBLE, R.E. HOPPER, JR., P.G. STROMBERG, Experience with Thermal Storage in Tanks of Stratified Water for Solar Heating and Load Management II 1018
- WOLLE, P.C., Wood Fuel in Suspension Burners II 597
- WRIGHT, R.M., J.F. KUNZE, M.V. HYNDMAN, R.W. GOULD, Low-Temperature Geothermal Heating Systems at Two Greenhouse Facilities II 737

Y

- YAMANAKA, G., N. TANAKA, M. IKEUCHI, Experimental Study on the Dynamic Characteristics of a Heat Pump II 323
- YI, J., State-Space Method for the Calculation of Air-Conditioning Loads and the Simulation of Thermal Behavior of the Room II 122

Z

- ZUBAIR, S.M. M.O. NAZER, Analysis of a Rankine Cycle Air-Conditioning System II 332

